

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of detecting ~~and or~~ quantifying EGFRvIII in a mammal, comprising ~~performing an ELISA specific for EGFRvIII with a biological sample from said mammal.~~

- a) obtaining a biological sample from the mammal;
- b) obtaining an EGFRvIII-specific polyclonal antibody that does not cross react with EGFR;
- c) performing an ELISA test on the sample using the EGFRvIII-specific polyclonal antibody; and
- d) detecting or quantifying EGFRvIII in the mammal.

2. (Currently Amended) ~~The method of Claim 1,~~ A method of detecting or quantifying EGFRvIII in a mammal, comprising performing an ELISA specific for EGFRvIII on a biological sample from the mammal, wherein the biological sample is derived from at least one of the group of urine, serum, plasma, CSF, amniotic fluid, breast secretions, lung sputum, or tumor cell extracts.

3. (Currently Amended) A method of detecting cancer in a mammal, comprising performing an ELISA specific for EGFRvIII ~~with~~ on a biological sample from ~~said~~ the mammal.

4. (Currently Amended) ~~The method of Claim 3,~~ A method of detecting cancer in a mammal, comprising performing an ELISA specific for EGFRvIII on a biological sample from the mammal, wherein the biological sample is derived from at least one of the group of urine, serum, plasma, CSF, amniotic fluid, breast secretions, lung sputum, or tumor cell extracts.

5. (Currently Amended) The method of Claim 3, wherein said the cancer is at least one of the group of breast cancer, adenocarcinoma, squamous lung cancer, gastrointestinal cancer, renal cell cancer, bladder cancer, glioma, gynecological carcinoma, ~~or~~ and prostate cancer.

6. (Currently Amended) A method of ~~selecting screening patients with cancer to receive anticancer therapy~~ a mammal with cancer for novel mutant EGF-directed anticancer therapies from at least one of the group of a vaccine, an antibody-toxin conjugate, or EGFRvIII-specific tyrosine kinase inhibitors, comprising performing an ELISA specific for EGFRvIII with a biological sample from said mammal, analyzing results of said ELISA, and selecting at least one of the group of said mutant EGF-directed anticancer therapies comprising:

- a) obtaining a biological sample from the mammal;
- b) performing an ELISA test on the sample using an EGFRvIII-specific polyclonal antibody that does not cross react with EGFR;
- c) detecting a mutant EGFR in the sample by the EGFRvIII-specific polyclonal antibody; and
- d) selecting an anticancer therapy directed to the mutant EGFR.

7. (Currently Amended) ~~The method of Claim 6;~~ A method of screening patients with cancer to receive anticancer therapy, comprising performing an ELISA specific for EGFRvIII with on a biological sample from the mammal, wherein the biological sample is derived from at least one of the group of urine, serum, plasma, CSF, amniotic fluid, breast secretions, lung sputum, or tumor cell extracts.

8. (Currently Amended) An ELISA for the sensitive detection of wild type EGFR and/or EGFRvIII in a mammalian sample ~~of~~ , wherein the mammalian sample comprises urine, serum, plasma, CSF, amniotic fluid, breast secretions, lung sputum, tumor cell extracts, or ~~any~~ extracellular or cellular fluids.

9. (Currently Amended) A method of detecting a preneoplastic ~~lesion~~ disorder in a mammal, comprising ~~performing an ELISA specific for EGFRvIII with a biological sample from said mammal.~~

- a) obtaining a biological sample from the mammal;
- b) performing an ELISA test on the sample using an EGFRvIII-specific polyclonal antibody that does not cross react with EGFR; and
- c) detecting a mutant EGFR in the sample by the EGFRvIII- specific antibody;

wherein detection of the mutant EGFR in the sample indicates presence of a preneoplastic disorder in the mammal.

10. (Currently Amended) ~~The method of Claim 9, wherein the preneoplastic lesion is~~
A method of detecting Barrett's esophagus in a mammal comprising performing an ELISA specific for EGFRvIII on a biological sample from said mammal.

11. (Currently Amended) A method of detecting benign prostatic hyperplasia in a mammal, comprising: ~~performing an ELISA specific for EGFRvIII with a biological sample from said mammal.~~

- a) obtaining a biological ample from the mammal;
- b) performing an ELISA test on the sample using an EGFRvIII-specific polyclonal antibody that does not cross react with EGFR; and
- c) detecting a mutant EGFR in the sample by the specific EGFRvIII antibody;

wherein detection of the mutant EGFR in the sample indicates presence of a benign prostatic hyperplasia in the mammal.

12-20. (Cancelled).

21. (New) The method of Claim 6, wherein the cancer comprises breast cancer, adenocarcinoma, squamous lung cancer, gastrointestinal cancer, renal cell cancer, bladder cancer, glioma, gynecological carcinoma, or prostate cancer.

22. (New) The method of Claim 6, wherein the anticancer therapy comprises administration of a vaccine, an antibody-toxin conjugate, an EGFRvIII-specific tyrosine kinase inhibitor, or a combination thereof.

23. (New) A method of diagnosing cancer in a mammal comprising:
a) obtaining a biological sample from the mammal;
b) performing an ELISA test on the sample using an EGFRvIII-specific polyclonal antibody that does not cross react with EGFR; and
c) detecting binding of a mutant EGFR in the sample with the specific EGFRvIII antibody,
wherein detection of the binding between the mutant EGFR in the sample and the EGFRvIII-specific antibody is indicative of cancer in the mammal.

24. (New) The method of Claim 23, wherein the EGFRvIII-specific polyclonal antibody has been rendered specific for EGFRvIII by absorption with one or more fragments of EGFR.

25. (New) The method of Claim 24, wherein the one or more fragments of EGFR comprise a peptide represented by SEQ ID NO: 2, a peptide represented by SEQ ID NO: 3, or both.